

Appl. No. 10/748,746
Amdt. dated July 24, 2008
Reply to Office Action of March 24, 2008

Atty. Ref. 81868.0111
Customer No. 26021

Amendments to the Drawings

The attached sheet of drawings includes amendments to FIG. 2 and replaces the original sheet including FIG. 2. In FIG. 2, the Host is designated as a Host Computer, the Card Reader is designated as a Device Driver, and a USB connection is shown between the Host Computer and Device Driver.

Attachments: Replacement Sheet (1)
 Annotated Sheet Showing Changes (1)

Remarks/Arguments

Reconsideration of this application is requested.

Extension of Time

A request for a one-month extension of the period for response to the Office Action mailed on March 24, 2008 is enclosed. The extended period for response expires on July 24, 2008.

Drawings

The Action objects to the drawings under 37 CFR 1.83(a) and asserts that they do not show a host computer, a device driver, a universal serial bus communication line and a human interface device.

In response, FIG. 2 is amended to designate the "Host" as a "Host Computer" and the "Card Reader" as a "Device Driver". This amendment is supported, for example, by paragraph 0034 of applicant's specification. In addition, FIG. 2 is amended to show a USB connection between the Host Computer and Device Driver, as is described, for example, in paragraph 0037 of applicant's specification. These amendments merely make the drawings consistent with the specification, and are therefore not new matter.

Applicant traverses the objection that the drawings should show a human interface device, since a human interface device is a part of applicant's claims. Rather, applicant's claim 13 recites a universal serial bus (USB) communication line for a human interface device (HID) specification. That is, the USB communication line should be compatible with the HID specification, however, a HID itself is not a part of applicant's claims. Applicant respectfully submits that it is not feasible or necessary to show the HID specification in the drawings.

Claim Status

Claims 1-20 are presented. Claims 1-4, 9-12, 17 and 19, which are withdrawn from consideration as drawn to a non-elected invention, are canceled without prejudice. Claims 6 and 14 are also canceled without prejudice. Claims 5,

7, 8, 13, 15, 18 and 20 are amended. Thus, claims 5, 7, 8, 13, 15, 16, 18 and 20 are now pending.

Claim Rejections

Claims 5-8, 13-16, 18 and 20 are rejected under 35 USC 103(a) as obvious over Nishihara (US 7,050,455) in view of Applicant's Admitted Prior Art (AAPA). In response, applicant traverses the rejections and amends independent claims 5 and 13 to clearly distinguish over Nishihara.

The present invention is directed to a universal serial bus (USB) communication method using an ID code to attain efficient communication. In the USB communication method, a packet is formed by the communication data format including a report ID and transmission data. The size of the packet is determined as a number of bytes that is less than a size of the transmission data, a first byte is assigned for the report ID, and the remaining bytes are assigned for a part of the transmission data (FIG. 1 and paragraph 0019). Importantly, at the time of transmission when the transmission data is larger than the predetermined size of the packet, the transmission data is divided according to the predetermined size of the packet. When a succeeding packet is present, an ID code 'presence' is added to the transmission data at a head portion of the packet and, when a succeeding packet is absent, the ID code 'absence' is added to the transmission data at a head portion of the packet, with a last portion of the transmission data included and transmitted in this packet. In this manner, useless processing such as sending an empty packet and a short packet is not required and thus efficient USB communication can be performed (paragraph 0051). Nishihara does not disclose or suggest this feature.

Nishihara discloses a layer frame 1 including a header having a packet length identifier and frame mode identifier. The frame mode can be a single frame, a beginning of message (BOM) frame, a continuation of message (COM) frame or an end of message (EOM) frame. However, there is no disclosure or suggestion that transmission data larger than the size of the packet is divided according to the

predetermined size of the packet. Instead, Nishihara merely teaches layer 1 frames partitioned into layer 2 frames based on placement and transmission priority (col. 11, lines 58-67). AAPA does not remedy the deficiencies of Nishihara in this regard.

To emphasize this feature, independent claims 5 and 13 are amended to emphasize the division of transmission data as well as the setting and adding of an ID code at a head portion of the packet. For example, claim 5 is amended as follows:

setting in advance the packet comprised of the report ID and the transmission data to be a predetermined size;

setting in advance the report ID as either an ID code "presence" that indicates the presence of the succeeding packet or an ID code "absence" that indicates the absence of the succeeding packet;

at the time of transmission, when the transmission data is larger than the predetermined size of the packet, dividing the transmission data according to the predetermined size of the packet;

when the succeeding packet is present, adding the ID code "presence" to the transmission data at a head portion of the packet;

when the succeeding packet is absent, adding the ID code "absence" to the transmission data at a head portion of the packet, and including a last portion of the transmission data in the packet;

Since Nishihara and AAPA do not disclose or suggest these features, claims 5 and 13, and claims 7, 8, 15, 16 and 18-20 dependent thereon, are not obvious over Nishihara and AAPA. Accordingly, the rejections under 35 USC 103(a) should be withdrawn.

Conclusion

This application is now believed to be in condition for allowance. The Examiner is invited to telephone the undersigned to resolve any issues that remain after entry of this amendment.

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Any fees due with this response may be charged to our Deposit Account No.
50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

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By: 
Troy M. Schmelzer
Registration No. 36,667
Attorney for Applicant(s)

1999 Avenue of the Stars, Suite 1400
Los Angeles, California 90067
Phone: 310-785-4600
Fax: 310-785-4601